# 4.4 WATER RESOURCES

## *4.4.1 EXISTING ENVIRONMENTAL SETTING*

### *Potable Water*

The City of Burbank Public Service Department (PSD) provides water to the project area and water users throughout the city. The PSD provides water to meet 100 percent of the City of Burbank's water needs. Groundwater from local wells is treated and blended with water from the Metropolitan Water District of Southern California (MWD).

Existing water delivery pipes in the project area include:

- Empire Avenue - 24 inch
- Pacific Avenue - 6 inch
- Victory Place - 8 inch
- Vanowen Street - 8 inch
- Victory Boulevard - 6 inch
- Mariposa Street - 8 inch
- Lincoln Street - 20 inch transmission line.

The following information in this section is provided by the City of Burbank Public Service Department (PSD).[1] Burbank has five connections to the MWD system, with a maximum rated capacity of 115.0 cfs (51,615 gallons per minute). One MWD connection is located in close proximity to the planning area. This connection is known as B-5, and is located at San Fernando Road and Greg Avenue. In addition to the MWD supply, the City produces and treats local groundwater as part of its water supply. Two separate well fields and treatment systems are used.

The Water Distribution System in the City of Burbank is composed of pipelines ranging in size from 1.5 to 30 inches in diameter, booster pumps, reservoirs, wells, and over 26,000 service connections.

There are 30 reservoirs ranging in capacity from 13,500 gallons to 25 million gallons. The Water Distribution System is divided into different zones, and the proposed project is located in Zone #1. In addition to being pumped from Zone #1, water is also derived from Zones #2 and #3, which are located in the surrounding area. Furthermore, water is pumped to the small, dead-end hillside zones, each of which has one or more regulating storage tanks. The storage capability of all the reservoirs is approximately 52.6 million gallons. The storage capability for Zone #1, where the project is located, is approximately 42.9 million gallons. Storage requirements for the City are determined on an aggregate basis.

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[1] Documentation from Peter Frankel, Senior Civil Engineer, City of Burbank PSD, July, 1998.

Pursuant to Senate Bill 901, the City of Burbank was contacted to assess the water demand of the proposed project. The City of Burbank Urban Water Management Plan, 1995, identifies the existing and projected water supplies and demand. The proposed project is consistent with this plan. In two memorandums, Mr. Fred Lantz, Assistant General Manager, City of Burbank PSD, identified that the City's water supplies will meet project water demand associated with the proposed project, and will be available as needed.[1] In addition, the City of Burbank states that the proposed project will not restrict the design options for system improvements/city water storage capacity.[2]

New water mains are required to follow the guidelines set forth by the Insurance Service Office (ISO) for Grading Schedule of Municipal Fire Protection. Under these guidelines, 12 inch mains are required to be installed where they do not presently exist. PSD Rules and Regulations for Water Service require 12 inch mains to be either installed or paid for in full by the developer for all new development in commercial or industrial areas where they do not already exist, with possible rebates provided to the developer.

Fire hydrants that are not spaced at 300 to 350 feet, and all additional hydrants to serve the project, are required to be installed by the developer by City ordinance. Where multiple story structures are involved, and there are existing fire hydrants, such fire hydrants are required to be replaced by hydrants that can provide additional capability to engine companies. These facilities are required to be provided at the expense of the developer, and become part of the on-site infrastructure system designed specifically for the proposed project to meet all fire flow regulations enforced by the Fire Department through the building plan check process.

Off-site domestic water connections to the site are required by the Uniform Building Code and the Uniform Fire Code, prior to occupancy permits issued by the City. Off-site domestic water main improvements may be installed by the developer as follows: 1) 2,700 linear feet of 12 inch ductile iron pipe in Victory Place, from railroad right-of-way to Empire Avenue; 2) 850 linear feet of 12 inch ductile iron pipe in Buena Vista Street, from Empire Avenue to Vanowen Street; and 3) a 12 inch main in Empire Avenue parallel with an existing 24 inch transmission main, or an equivalent system shall be installed on site, as defined in the Development Agreement. Water mains in Burbank Boulevard and Victory Place will be replaced as part of the Five Points realignment project, due to inadequate size.

On-site water main improvements will be installed by the developer in permanent utility easements through the property in a City Public Works Department utility corridor. City required fees will be assessed, and fees of $77,448 will be paid, subject to possible

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1 Memorandum, Fred Lantz, Assistant General Manager, Water, August 23, 1999.

2 Letter, Bruce Feng, Public Works Director, City of Burbank, August 6, 1999.

full rebate to the developer.[1] To serve a project of this size, a 12 inch pipe will be required as the major backbone water distribution line in the on-site utility loop, and the system will be installed according to the City's specifications.

In order to serve the proposed project and to avoid overcapacity water services to adjacent areas, the Water Division has determined that the existing six inch water main in Victory Boulevard must be abandoned and new 12 inch water mains must be installed in a new alignment segment. The developer or the City will bear the expense of abandonment and replacement of these lines, in accordance with the Water Rates Rules and Regulations, as defined in the Development Agreement. The preliminary estimate of this expense is $785,000.[2] The Water Division will abandon the existing six inch water line, and will require a 20 foot utility easement for the 16 inch water transmission main in the relocation area of Victory Boulevard. New or existing water services for any project within the area are required, by the Uniform Building Code, to provide protective devices that prevent objectionable substances (not necessarily hazardous to health) from being introduced into the public water supply. The requirements for backflow prevention are provided under Title 17 of the California Code of Regulations, and are required at the time of plan check, prior to issuance of building permits. These protective devices are required, and will need to be installed by the developer. The devices will then be inspected and tested annually by the City to ensure that they are maintained in proper working order.

***Reclaimed Water/Water Conservation***

The City of Burbank owns and operates the Burbank Water Reclamation Plant (BWRP), which reclaims over 5,000 acre-feet of municipal wastewater annually. The reclaimed water is proposed to be used for landscape irrigation. PSD is the purveyor for the reclaimed water.

The City of Burbank Water Division Rules and Regulations for Water Services (Section 4.09) require that any developments with more than one acre of landscaped area, or over one million gallons of non-potable water use, design for the future use of reclaimed water. The proposed project will be required to install an irrigation system in accordance with reclaimed water standards, separate from the domestic water system. If necessary, the irrigation system may be served temporarily with a domestic water service until a reclaimed water service is available. Installation of this system is also consistent with the Southern California Association of Governments (SCAG) Regional Comprehensive Plan and Guide Policies that were established to promote conservation of water throughout the region. The irrigation plans and construction will require inspection by the City of Burbank and the Los Angeles County Department of Health

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1 Memorandum, Fred Lantz, Assistant General Manager, Water, May 27, 1997. Fees waived up to $77,448, as the B-1 site has a credit due to the size and number of prior services.

2 Memorandum, Ali Pouraghabagher, City of Burbank PSD, Water-Light-Power, April 19, 1999.

Services. The City will provide adequate facilities and treated water to a developer provided reclaimed water system to the boundaries of the project. All development options will be required to install a reclaimed water line to serve all landscaping on the project site. A minimum 20 foot easement along the southern (railroad) property line of the B-1 site is required for the extension of the primary reclaimed water transmission line on site, in agreement with the developer and as shown on the proposed Parcel Map. The developer will design and provide all on-site facilities for the use of reclaimed water. As a minimum, development proposes the following:

- Reduced pressure principal type backflow preventers (RP) at all potable water services, or the provision for adding RPs at the service connection in the future.

- A separate water service and distribution system shall be installed to handle the non-potable use. Only applications suitable for reclaimed water shall be allowed from this system. A minimum 20 foot access easement shall be preserved for the extension of the on-site portion of the reclaimed water main transmission line. This may require minor relocation of planned structures along the southern property line (along the railroad right-of-way) of the B-199 site, subject to final surveys and prescribed minimum access distance requirements.

- All off-site facilities shall be installed by the developer required to convey the reclaimed water to the project site from the Chestnut Street plant. The line will be required to be ten inches in diameter.

- The reclaimed water distribution system shall follow all requirements concerning identification and separation from the potable system.

Reclaimed water may be used for landscape irrigation, industrial processes (not involving food or beverages), vehicle washing, or fire suppression. The on-site reclaimed water system will be installed prior to issuance of the first occupancy permit, ready for hookup to the City's system.

### *Fire Flow*

Fire flow requirements are based on construction type and square footage, as identified in 1994 Uniform Fire Code Appendix III-A, Table A-III-A-1. An evaluation has been performed for the project site's existing conditions. Average fire flow in this study area is 6,000 gpm. Preliminary area fire flow tests from lines other than the Empire Avenue transmission line average 1,700 to 2,300 gpm.[1] More tests from additional lines, after they are installed, need to be conducted to provide supplemental information on fire flows. As required by the Uniform Fire Code, the fire hydrant system and any fire protection system utilizing water are to be constructed by the developer at the same time as the project. Domestic and fire services, as well as fire hydrants, are not allowed to be taken from domestic potable transmission mains. For this reason, it will be necessary to

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[1] Memorandum from Daryl L. Forbes, Fire Marshal, July 13, 1999.

install a 12 inch main in Empire Avenue parallel with the existing 24 inch transmission main.

## *Drainage and Flood Control*

A Preliminary Hydrology Study (Appendix G) was prepared on December 23, 1997, and updated with a Supplemental Study on February 21, 1998.[1] The purpose of these studies was to analyze existing hydrology conditions and how the Burbank Empire Center project would affect existing hydrology conditions. These two studies are hereby incorporated by reference. This section summarizes the findings of the studies, and analyzes existing and future conditions to determine whether impacts will result from the proposed project.

### *Existing Drainage*

The B-1 and B-199 portion of the project site has been cleared of all buildings and surface paving. On the B-1 site, the stormwater is collected in asphalt lined ditches, which convey the runoff to one of three detention basins. The ditches also serve as overflow conduits to downstream basins. One of the three detention basins outlets to an existing storm drain in Victory Place. Water from the other two detention basins is conveyed into the existing rectangular concrete lined Lockheed Channel directly south of the project. Siltation basins are present so as to reduce silt runoff in the current unimproved condition.[2]

The northern portion of the B-199 site drains to the Lockheed Channel, which flows through the north side of the site in an open rectangular concrete channel and transitions to a box culvert as it exits the property to the east, where it flows into the Burbank Western Flood Control Channel. The southern portion of the B-199 Site drains overland to Victory Boulevard, where it is conveyed to catch basins along the street and into a 60 inch storm drain main. Figure 4.4.1 depicts the existing topography for the proposed project.

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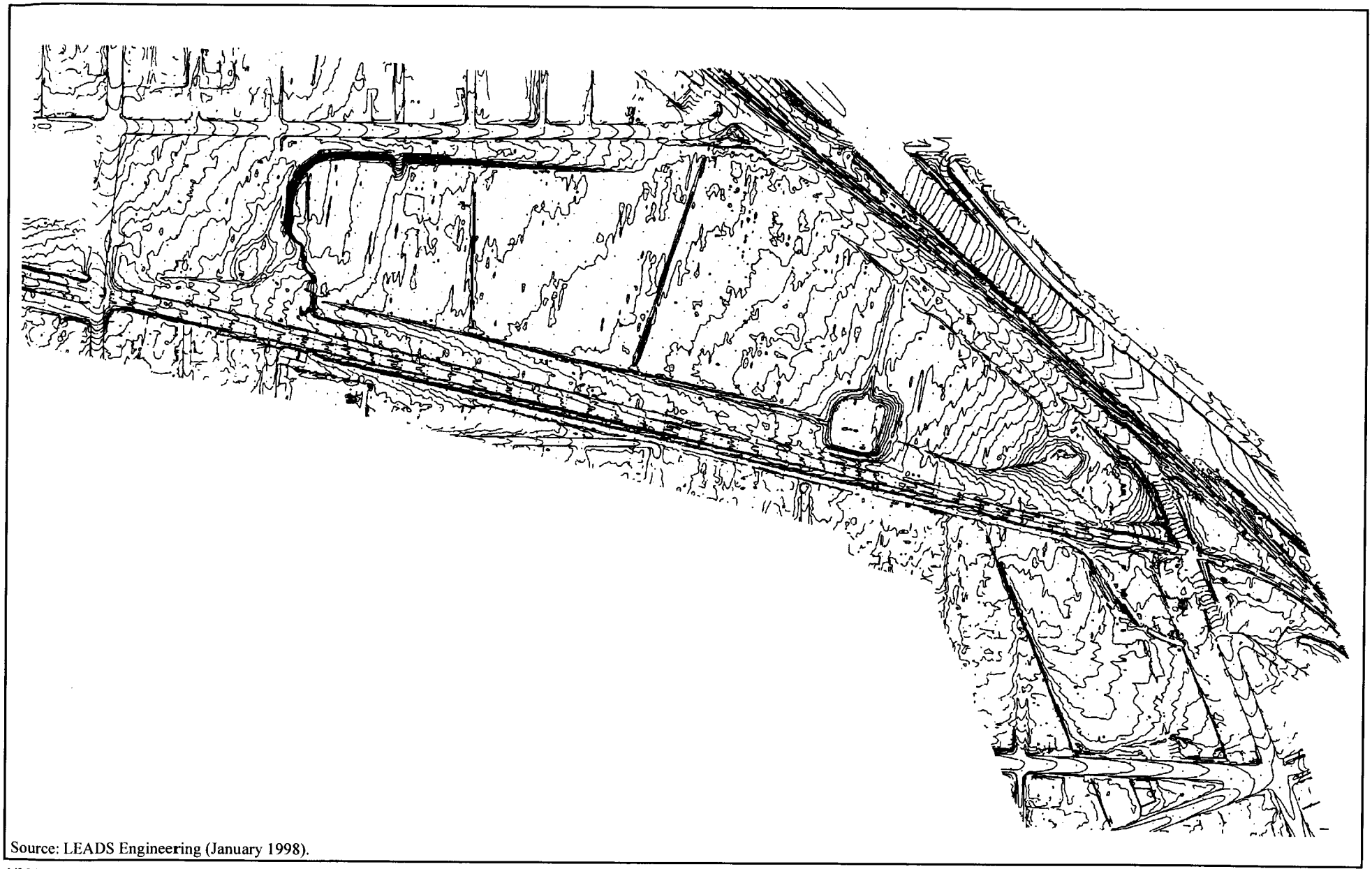
1 *Preliminary Hydrology Study Burbank Empire Center, Burbank, California*, prepared by LEADS, December 23, 1997. *Supplemental Preliminary Hydrology Study Burbank Empire Center*, prepared by LEADS, February 21, 1998.

2 Teleconference, Scott Warren, Lockheed Martin, January 7, 2000.



Source: LEADS Engineering (January 1998).

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Figure 4.4.1

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LSA

Scale in Feet

0 500 1000

Existing Topography

***Existing Flood Control***

The Lockheed Channel lies south of the B-1 site and bisects the northern portion of the B-199 site. The channel is a combination of a reinforced concrete box and a rectangular reinforced concrete open channel, which flows from northwest to southeast into the Burbank Western Flood Control Channel.

The Lockheed Channel is structurally sound, but is undersized to handle all of the upstream drainage from the project site combined with the balance of the watershed north of the project site. Upstream of Buena Vista Avenue, a 100 year storm would produce a storm water runoff of approximately 2,000 CFS, which would be conveyed in the Lockheed Channel. However, at Buena Vista Avenue, the Lockheed Channel transitions to an undersized concrete box culvert that can convey only 1,000 CFS under the street to continue further downstream. The remaining 1,000 CFS flows north to Buena Vista Avenue and flows onto the existing project site.

The Los Angeles County Public Works Department (LACPWD) has identified the inadequacy of the channel to convey a ten year storm. LACPWD is planning to construct a major storm drain project (No. 9250) in Los Angeles, which will divert a significant amount of storm water flows away from the Lockheed Channel. The storm drain project will be constructed in four phases, with the first phase to begin in less than three years based on current projections. It will divert a small area near the Burbank-Glendale-Pasadena Airport away from the drainage area tributary to the Lockheed Channel. This diversion is estimated to convey approximately 200 CFS during a 100 year storm event away from the Lockheed Channel and into the LACPWD future storm drain project.

Due to the under capacity condition of the Lockheed Channel, a revised Flood Insurance Study was completed by Ensign & Buckley. The 100 year floodplain, as identified by the U.S. Army Corps of Engineers using the flood elevations determined at each cross section, is depicted on Figure 4.4.2, the Flood Insurance Rate Map (FIRM) for the area. A current FIRM (No. 065018 0005 B, revised January 20, 1999) also shows the 100 year floodplain delineated for the project area, and thereby supports the information in the revised Flood Insurance Study.[1]

***Stormwater Quality***

The U.S. Environmental Protection Agency (EPA) published stormwater runoff permit regulations effective December 17, 1990. These regulations require specific categories of commercial/industrial facilities to obtain a National Pollution Discharge Elimination System (NPDES) Permit. California requires all commercial/industrial facilities that are considered to contribute to stormwater pollution to apply for a permit. Federal regulations also require NPDES permits for construction activities for sites greater than five acres.

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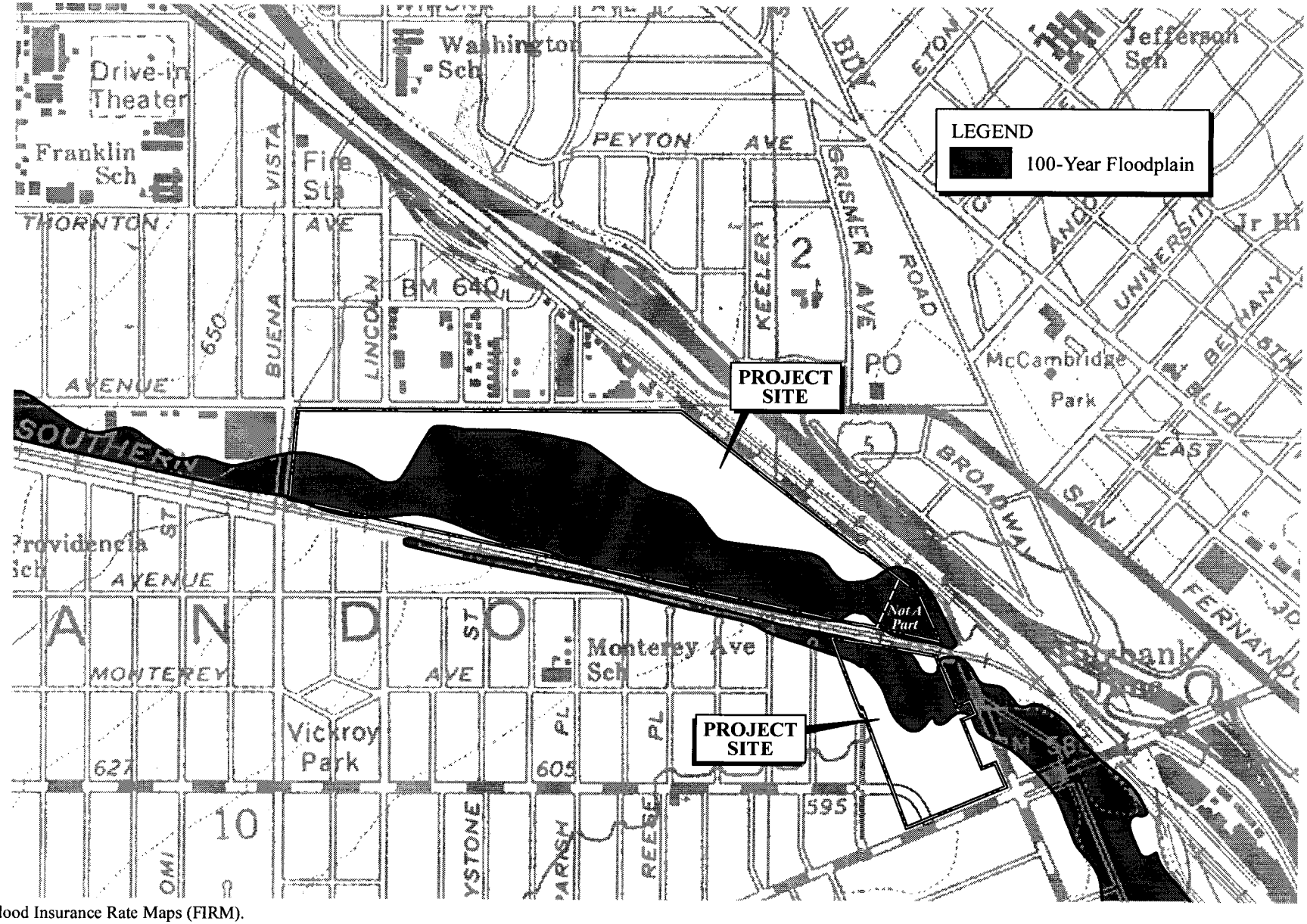
[1] Letter, Bruce Feng, Public Works Director, City of Burbank, August 6, 1999.




Source: Flood Insurance Rate Maps (FIRM).

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N

LSA

Scale in Feet

0 500 1000

Figure 4.4.2

100-Year Floodplain

A California statewide NPDES General Permit was issued in November, 1991, for stormwater discharges associated with construction activity and the implementation of projects larger than five acres in size. The State Regional Water Quality Control Board (RWQCB) and the nine regional water quality control boards currently administer the NPDES permit regulations. For coverage under the statewide General Permit, a discharger (in this case the project developer, Zelman Retail Partners, Inc.) is obligated to implement structural and non-structural non-point source pollution control measures known as Best Management Practices (BMPs) to limit urban pollutants, to the maximum extent practicable, from reaching the Waters of the United States. The BMPs are implemented during construction, and continue during ongoing operation of the facilities, if appropriate.

### *4.4.2 THRESHOLD OF SIGNIFICANCE CRITERIA*

An impact shall be considered significant if it results in the following:

- Project demand exceeding existing or projected City of Burbank water supplies.
- Inability for the City of Burbank to provide water service to satisfy cumulative demand.
- Insufficient drainage facilities in place by issuance of certificates of occupancy to protect habitable structures on the site from the 100 year flood as identified by FEMA (refer to Preliminary Hydrology Study for the Burbank Empire Center in Appendix G.)
- Increase in storm water runoff from the site that would substantially increase flood damage on surrounding or downstream structures from a 100 year storm. This includes any increase in stormwater runoff above the 1,000 CFS historical flows for the site.
- Substantial degradation of the existing quality of stormwater by substantial soil erosion or pollutants being released into stormwater flow, including typical urban pollutants. Urban pollutants that degrade the quality of stormwater are typically composed of automobile residues from parking lots and roadways (including oil and antifreeze), and pesticides and fertilizers from landscaped areas.

### *4.4.3 IMPACTS - DEVELOPMENT OPTION A*

#### *Less than Significant Impacts*

##### *Potable Water*

The City of Burbank will provide water to satisfy projected water demand associated with the proposed project. Development Option A is expected to generate demand for approximately 996,000 gallons per day of potable water.[1] Domestic water services and supplies will be available as needed.[2] Water will be provided to the site similar to any other proposed development, with connection of the City's water service lines to the on-site distribution and delivery facilities. The proposed project will result in the need for a six inch water main in Victory Boulevard to be abandoned and replaced with a 12 inch main, or equivalent on-site system, as defined in the Development Agreement.

Water mains in Burbank Boulevard and Victory Place will not adequately serve the project; therefore, they will need to be replaced. The existing water system facilities are adequate to provide for domestic service and fire flows to the planning area, as noted in Section 4.4.1, Existing Environmental Setting. However, new additions to the planning area will create additional demands on the water system. New water mains are required to follow the guidelines in the Insurance Service Office (ISO) for Grading Schedule of Municipal Fire Protection. Under these guidelines, 12 inch mains will be constructed by the developer, as defined in the Development Agreement.

Fire hydrant upgrades and additional fire hydrants will be implemented by the developer throughout the project site.

The developer will provide off-site domestic water connections to the site prior to occupancy permits being issued by the City. Off-site domestic water main improvements (or on-site equivalent) to be provided by the developer include: 1) 2,700 linear feet of 12 inch ductile iron pipe in Victory Place, from Union Pacific Railroad right-of-way to Empire Avenue; 2) 850 linear feet of 12 inch ductile iron pipe in Buena Vista Street, from Empire Avenue to Vanowen Street; and 3) a 12 inch main in Empire Avenue parallel with the existing 24 inch transmission main, as defined in the Development Agreement. On-site water main improvements will be installed by the developer in permanent utility easements through the property in an on-site utility loop, and the system will be installed according to the City's specifications, as required by the City Code, the Uniform Building Code, and the Uniform Fire Code. The 20 inch transmission main currently on the site (in the extension of Lincoln Avenue) will remain in place, and will have an easement reserved for it, as depicted in the proposed Parcel Map.

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[1] Assumptions for potable water demand are based on "Commercial and Industrial Water Use in Southern California," prepared by Metropolitan Water District of Southern California, 1990.

[2] Memorandum, Fred Lantz, Assistant General Manager, Water, City of Burbank Public Service Department, August 23, 1999.

Development Option A will include all of the water service improvements described above, as specified in the proposed Parcel Map and as required by the codes cited above. With implementation of these services as described herein, impacts will be less than significant.

***Reclaimed Water/Water Conservation***

The proposed project, to satisfy City domestic water conservation policies, provides a reclaimed water system to the boundaries of the project. Development Option A will be required to install a reclaimed water line to serve all landscaping on the project site. Reclaimed water may be used for landscape irrigation, industrial processes (not involving food or beverages), vehicle washing, or fire suppression. The facilities provided in the development plans include an on-site booster pump for on-site service and on-site distribution lines.

Implementation of Development Option A will accommodate implementation of reclaimed water service to the site without substantial impact to the City's system. Implementation of the reclaimed water system will be a major project benefit toward assisting the City in its water conservation program. Therefore, impacts are less than significant. If necessary, the irrigation system may be served temporarily with a domestic water service until a reclaimed water service is available. Installation of this system is also consistent with the Southern California Association of Governments (SCAG) Regional Comprehensive Plan and Guide Policies that were established in order to promote conservation of water throughout the region. The irrigation plans and construction will require inspection by the City of Burbank and the Los Angeles County Department of Health Services.

With implementation of the services described above, impacts are less than significant.

***Fire Flow***

Fire flow requirements will be met as identified in 1997 Uniform Fire Code Appendix III-A, Table A-III-A-1. Implementation of fire flow for Development Option A will meet Uniform Fire Code requirements will not result in any potentially significant impact.

***Significant Impacts***

***Flood Control***

The FEMA Flood Insurance Study discussed in the Preliminary Hydrology Study shows that a significant quantity of off-site runoff flows across the project site. Since the Lockheed Channel conveys only 1,000 CFS of the 2,000 CFS of stormwater under Buena Vista Avenue and further downstream, overflow of the remaining 1,000 CFS is expected to flow north to Buena Vista Avenue and continue onto the project site.

For the purpose of the Hydrology Study, the site is assumed to be 100 percent impervious, to provide a worst case or conservative drainage analysis. However, the proposed project improvements, while altering the surface structure of the site, do not significantly alter the pre-existing drainage patterns. With the proposed project having the same impervious factors as the conditions for the former Lockheed Martin development, assuming the worst case scenario of 100 percent impervious surface, there is no change in stormwater runoff volume.

The Supplemental Preliminary Hydrology Study[1] identifies three options for addressing the FEMA 100 year floodplain issue and conveying the 1,000 CFS flow deficiency of Lockheed Channel at Buena Vista Avenue. The three design options are as follows and are discussed below: 1) elevate building finished floors, 2) construct a new box culvert, and 3) reconstruct Lockheed Channel.

*Option 1 - Elevate Building Finished Floors*

A hydraulic analysis was performed to determine that 1,000 CFS could be accommodated on-site in the parking lots and drive aisles without inundating the proposed buildings. The analysis shows that the flow would be generally contained within the central drive aisle through the business park and within the parking area to the north of the major retail stores. The depth of flow in this drive aisle would not exceed two feet during the 100 year storm event. The water will flow onto the main parking lot north of the major retail buildings. In order to avoid flooding of structures, the finished floor elevations of Development Option A should be raised to a level above the predicted flood elevation for the 100 year storm event. The 100 year storm would overflow at the south end of the property to Victory Place and continue south toward existing commercial properties.

The hydraulic analysis also determined whether the 100 year storm flow would top the existing railroad tracks on the south side of the property once the finished floor elevations were raised. Flow across the tracks could cause the residential community to the south to experience flooding from runoff that was previously contained on the B-1 portion of the project site. However, the hydraulic analysis indicates that the flows would be contained on the site and continue downstream to Victory Place and existing commercial properties to the south.

*Option 2 - Construct New Box Culvert*

A new transition structure could be constructed in the Lockheed Channel, upstream of Buena Vista Avenue, to convey the additional 1,000 CFS that currently flows onto Buena Vista Avenue and the project site. This box culvert would be constructed to convey the flows through the project site and also connect downstream to the Burbank Western Channel. The proposed box culvert would not follow the same alignment as the Lockheed Channel in order to avoid the cost of constructing the culvert under the

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[1] Supplemental Preliminary Hydrology Study, LEADS, February 21, 1998.

existing buildings along Lake Street. The proposed alignment would be around the northeast side of the existing animal hospital located on Victory Place and then connect back to the existing Lockheed Channel alignment. Some utility conflicts with the on-site VES have been identified, and would be accounted for during final design, if required.

The proposed box culvert structure would need to be approximately 12 feet wide by 6 feet high to convey the flows down to the Lockheed Channel. The maximum height may have to be reduced to five feet based on the ten foot on-site exclusion zone included in the development agreement with Lockheed Martin. The downstream 1,200 feet of the proposed culvert may be open rectangular channel where it is aligned with the existing Lockheed Channel. Extensive utility research and permission to cross under and along existing railroad right-of-way has not been formalized at this point in the preliminary studies. However, based on the topographic information and knowledge of the existing site conditions, this option is feasible. The Final Hydrology Study required by Mitigation Measure 4.2, discussed later in this section, will formalize the plans for the proposed box culvert.

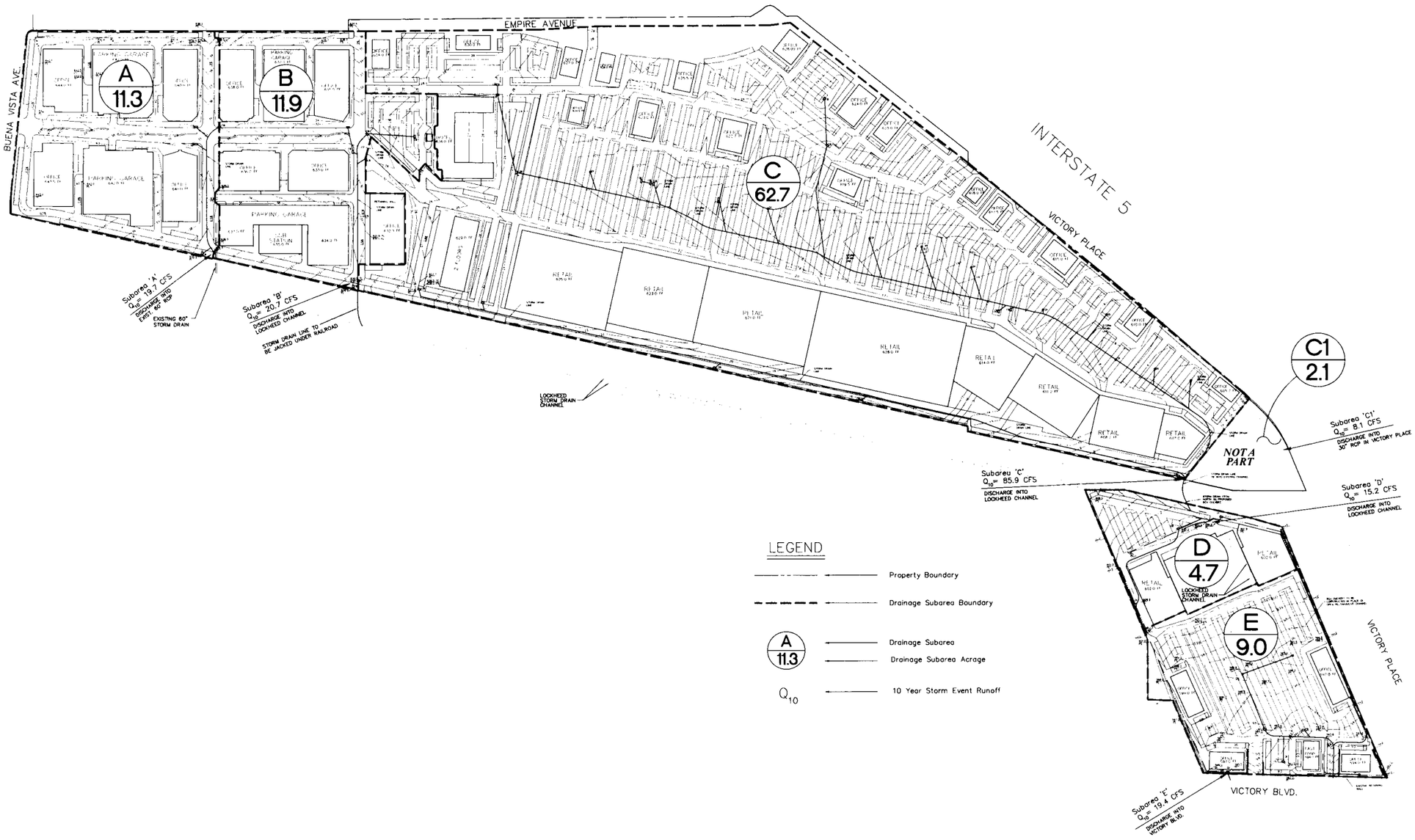
*Option 3 - Reconstruct Lockheed Channel*

Downstream of Buena Vista Avenue, the existing Lockheed Channel does not have the capacity to convey 2,000 CFS; however, it could be reconstructed in its existing alignment to handle this quantity of runoff. The Lockheed Channel can be reconstructed from the connection to the Burbank Western Channel to Buena Vista Avenue. This would require increasing both the rectangular open channel sections and the box culvert sections of the Lockheed Channel. The most difficult construction would be the 500 feet of box culvert that currently flows under existing buildings located along Victory Place and Lake Street (approximately 550 feet).

The advantages of reconstructing the existing Lockheed Channel is that a right-of-way acquisition process would not be required. However, the existing channel alignment is not the most efficient based on the developments that have been constructed near the channel during the last 50 years.

***Drainage***

Figure 4.4.3 depicts the preliminary hydrology map for Development Option A. The proposed project is designed to reasonably convey maximum flows of a 100 year storm event, ensuring that the buildings constructed on site are not subject to flooding, while avoiding displacement of flows to residences on the south side of the railroad tracks and other downstream properties.




Source: Development Resource Consultants, Inc., April, 1999

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Figure 4.4.3

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LSA

Scale in Feet
0 250 500

Preliminary Hydrology Map
Development Option A

The proposed project is designed to allow 100 year storm water to flow across the site on the surface. The grading of the site would be designed to elevate the buildings and convey the flows in the private streets and parking areas. The storm flows would be conveyed from Buena Vista Avenue in the central drive aisle that runs east and west through the business park portion of the site. The depth of flow in this drive aisle would not exceed two feet and the velocity less than eight feet per second during the 100 year storm event.[1] Should on-site structures be allowed to extend below grade without being flood proofed, there would be significant impacts to property and human health from flooding.

The water would then flow onto the main parking lot north of the major retail buildings. This parking lot at the northeast end on the site would be designed to allow water to pond without entering the buildings. The flow would be contained in the lower areas of the lot with a maximum flooded width of 200 feet and a maximum depth of 1.5 feet. At the southeast end of the lot, the water would be moving slowly due to the large, but shallow, flooded area. At the southeast end of the parking lot north of the railroad tracks on the B-199 site, the stormwater would flow from the parking area over the sidewalk and curb onto Victory Place. This flow would continue down the street at flows one to two feet in depth to the undercrossing at the railroad where it would pond in the existing sump. Victory Place would continue to be subject to closure due to the flooding conditions. The proposed method of disposition of stormwater could flood underground vaults now housing groundwater extraction pumps and testing equipment, as well as future utility vaults.

The flooding conditions and road closures anticipated with construction of the project result in impacts requiring mitigation. With implementation of the suggested mitigation measures identified below, impacts to on-site parking areas, public parkways and sidewalks, and Victory Place would remain. These impacts, especially to Victory Place, causing episodic closures of this public street, are determined to be significant. Mitigation Measure 4.4, requiring no parking signage in areas of anticipated periodic flooding, will reduce these significant impacts to below a level of significance. Drainage to the Lockheed Channel is proposed to remain unchanged, due to holding stormwater on site and allowing sheet flow to City streets, rather than impacting Lockheed Channel.

***Stormwater Quality***

The current condition of the site (bare earth formerly treated with the binding agent "Soilseal" for dust control purposes) is such that stormwater is detained in siltation basins before it is released into the stormwater drainage system. Once grading for development is underway, uncompacted soil, some possibly containing residual contaminants, will be positioned so as to be subject to potentially substantial stormwater flow during storm flood events. This condition could lead to significant erosion and downstream sedimentation and urban stormwater discharge affecting downstream stormwater drains and, ultimately, the Los Angeles River. This would be a potentially significant impact on stormwater quality, if not properly controlled.

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[1] Letter, Ora Lampman, Public Works Director, June 26, 1998.

The U.S. Environmental Protection Agency (EPA) published stormwater runoff permit regulations effective December 17, 1990. These regulations require specific categories of commercial/industrial facilities to obtain a National Pollution Discharge Elimination System (NPDES) Permit. The State of California requires all commercial/industrial facilities that are considered to contribute to stormwater pollution to apply for a permit. Federal regulations also require NPDES permits for construction activities for sites greater than five acres.

A California statewide NPDES General Permit was issued in November, 1991, for storm water discharges associated with construction activity and the implementation of projects larger than five acres in size. The State Regional Water Quality Control Board (RWQCB) and the nine regional water quality control boards currently administer the NPDES permit regulations. For coverage under the statewide General Permit, the project developer is required by these regulations to implement structural and non-structural non-point source pollution control measures known as Best Management Practices (BMPs) to limit urban pollutants, to the maximum extent practicable, from reaching the Waters of the United States. The BMPs are identified in a Storm Water Pollution Prevention Plan (SWPPP) for the site, currently on file with the City of Burbank, attention Roger Baker. The objective of the SWPPP is to identify pollutant sources that may affect the quality of discharges of stormwater from the site associated with construction activity and post-construction activity, and to identify measures that can be implemented to reduce pollutants in the site storm water discharges.

The Notice of Intent (NOI) for the project has been filed with the Los Angeles Regional Water Quality Control Board, in accordance with the NPDES General Permit requirements.

There are no known pollutants affecting the existing runoff draining into the storm drain systems, as a result of extensive soil remediation and ongoing Vapor Extraction System (VES) removal of residual soil contaminants and current drainage conditions of the site, whereby stormwater is captured and treated before being released. There are also no known pollutants (upstream or on-site) that have a significant adverse impact on stormwater quality in the project area. The SWPPP identifies the construction and post-construction BMPs to reduce sediment and other construction and post construction related pollutants in storm water discharges. For example, existing storm water structures on-site will be protected using sand bags, two layers high. Sand Bags will also be placed along the perimeter to prevent sediment from leaving the site. Other construction practices concern the timely removal of debris, the proper storage of paints and other chemicals, the implementation of dust control measures during grading, and the proper cleaning, fueling and maintenance of construction vehicles. Post construction BMPs will include the use of landscaping to reduce erosion, the application of mulching to stabilize cleared or freshly seeded areas, the limitation of loading and unloading activities to designated areas, the stenciling of storm drains with appropriate signage/icons to discourage illegal dumping, and the screening and securing of trash container areas to prevent off-site transport of trash. Also, water quality inlets shall be installed at the truck loading docks. Even with the BMPs required by the SWPPP, there is a possibility that application of the BMPs may not sufficiently lessen these impacts during storm of a magnitude to cause on-site flooding or sheet flow sufficient to

discharge off the site. Extraordinary inspections and reporting are in order to reduce this potentially significant impact. Mitigation Measure 4.5 specifically addresses the implementation of the BMPs and provides reasonable assurance that the BMPs will be effective.

### *4.4.4 MITIGATION MEASURES - DEVELOPMENT OPTION A*

#### *Potable Water, Reclaimed Water, and Fire Flow*

None required.

#### *Drainage and Flood Control*

4.1 During grading and building plan check, prior to issuance of any building permit, the Public Works Department shall ensure that pylon signs shall not encroach into the Lockheed Channel and shall comply with BMC 7-104, 26-702, which states that no structure is permitted in any public street (or alley), nor any public utility, storm drain, or sewer easement located within the property.

4.2 A preliminary Hydrology Study has been accepted by the City; however, an approved Final Hydrology Study is required to assure that surrounding properties and Lockheed Channel will not incur negative impacts, to the satisfaction of the Directors, Public Works Department, and the Public Service Department, prior to issuance of grading permits. The Final Hydrology Study would identify minor modifications to the proposed on-site storm drain system. The Final Hydrology Study will include design requirements to ensure that effects of a 100 year storm are accommodated by on-site facilities, and that all habitable structures are protected from the 100 year storm.

4.3 Drainage plans shall provide protection to all planned and existing underground vaults, to the satisfaction of City of Burbank PSD. These drainage plans shall include, but are not limited to, the design of drainage systems that decrease a significant quantity of storm flows reaching underground vaults. No parking structure or habitable building space shall be allowed below ground level or, if such structures are permitted, they shall be flood proofed or otherwise prevented from flooding. The proposed on-site storm drain system will be designed to provide multiple catch basins and drainage inlets to decrease the amount of ponding. Major building roof drains will be designed to connect directly to the underground system and alleviate surface flows behind the office and retail buildings. Such plans shall be reviewed and approved prior to the issuance of grading permits, to the satisfaction of the Directors, Public Works Department, and the Public Service Department.

4.4 Areas of anticipated periodic flooding on the site shall be designated as “No Parking” or “Fire Lane - No Parking” areas. Signage shall be implemented

prior to issuance of occupancy permits, subject to the approval of the Director, Public Works.

***Stormwater***

4.5 The Construction Contractor shall be responsible for performing and documenting the application of BMPs identified in the Storm Water Pollution Prevention Plan (SWPPP). Weekly inspections shall be performed on the sand bags barriers and other sediment control measures called for in the SWPPP and the Wet Weather Erosion Control Plan (WWECP). Monthly reports shall be maintained by the Director, Public Works. The applicant's contractor shall inspect BMP facilities before and after every rainfall event that is predicted to produce observable runoff, and at 24 hour intervals during extended rainfall events, excepting days when there is no ongoing site activity. Pre-storm activities will include inspection of the major storm drain grate inlets and examination of other on-site surface flow channels and swales, including the removal of any debris that blocks the flow path. Post-storm activities will include inspection of the grate inlets, looking for any ponded water on the site and determining the cause, and looking for surface erosion. The Construction Contractor shall implement corrective actions specified by the City's Public Works Department, as necessary, at the direction of the Director, Public Works. Inspection records and compliance certification reports shall be submitted to the Director, Public Works, on a monthly basis and shall be maintained for a period of three years. Inspection schedules shall be monthly during the dry season and weekly during the wet season.

### *4.4.5 CUMULATIVE IMPACTS - DEVELOPMENT OPTION A*

For all cumulative analysis related to water resources and drainage, the cumulative projects being considered include all potential projected development within the City, as documented in the City's 1995 Urban Water Management Plan. Because cumulative drainage impacts are caused by build out of projects that cover pervious surfaces with structures and parking lots that are impervious, cumulative development is considered to be build out of the City over an extended time period, resulting in complete available parcel build out.

The City has indicated potable water is available within the context of build out of the projected water demand included in the City's 1995 Urban Water Management Plan. No adverse impacts to the City of Burbank's water storage and transmission ability are anticipated with the implementation of the off-site and on-site improvements discussed above. Development Option A is programmed into the 1995 Urban Water Management Plan.[1]

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[1] Memorandum, Fred Lantz, Assistant General Manager, Water, October 30, 1997.

As shown in 4.4.2, 100 Year Floodplain, the boundaries of the 100 year floodplain are delineated using water surface elevations based on detailed data from City of Burbank topographic maps and Lockheed Channel as-built plans. The Flood Insurance Rate Map (FIRM) shows extensive flooding potential on the project site. Flooding is caused by the overflow of stormwater runoff from the Lockheed Channel, where it transitions from an open channel to a box channel at Buena Vista Avenue. The overflow is expected to continue across the B-1 site, and is prevented from flowing back into the Lockheed Channel by the elevated railroad tracks to the south.[1]

A small area on the eastern portion of the B-1 site is tributary to an existing 30 inch reinforced concrete pipe (RCP) in Victory Place, which conveys stormwater runoff further downstream prior to connecting to the Lockheed Channel. Due to the relatively low capacity of the 30 inch RCP, it generally functions as a secondary drainage outlet if the on-site drainage system and connection points to the Lockheed Channel fail. Approximately 1,000 CFS can be handled on site in the parking lots and drive aisles without inundating the buildings. The flow will mainly be contained in the main drive aisle through the business park and in the parking area to the north of major retail shops. The 100 year storm flows will overflow at the south end of the property to Victory Place and continue south to the existing commercial properties.[2] Even with the implementation of project mitigation related to stormwater flood control, cumulative impacts from area flooding along Victory Place are anticipated as a result of the proposed project. Cumulative impacts related to area flooding at Victory Place are considered significant and unavoidable.

### *4.4.6 LEVEL OF SIGNIFICANCE AFTER MITIGATION - DEVELOPMENT OPTION A*

Mitigation Measure 4.1, requiring that no sign structures encroach the Lockheed Channel or any public utility or street, storm drain, or sewer easement, reduces impacts related to flooding to below a level of significance. Mitigation Measure 4.2 calls for a Final Hydrology Study, which ensures that surrounding properties and the Lockheed Channel will not incur substantial new and/or additional negative impacts related to flooding; therefore, significant project related impacts are reduced to below a level of significance.

Mitigation Measure 4.3 requires the flood proofing and not the removal/relocation of any existing underground vaults. With implementation of Mitigation Measure 4.3, requiring the construction of multiple catch basins and drainage inlets to eliminate flooding, any potential significant impact related to underground vaults is reduced to below a level of significance.

The project is designed not to create any additional adverse impacts to the existing conditions of the 100 year floodplain. Project design features and mitigation measures will protect the built structures on the site from 100 year storm flooding impacts. The

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1 L.E.A.D.S., *Preliminary Hydrology Study*, December 23, 1997.

2 L.E.A.D.S., *Supplemental Preliminary Hydrology Study*, February 19, 1998.

proposed project improvements, including elevated building pads, the construction of a new box culvert, and reconstruction of the Lockheed Channel, will reduce any flooding impacts to built structures to below a level of significance. However, despite project mitigation, flooding of on-site surface parking will still occur, rendering parking areas unusable while flooded, and will allow stormwater flow over the curb and sidewalk onto Empire Avenue and Victory Place. These cumulative/historic impacts are significant and unavoidable.

Cumulative impacts to region serving flood control facilities and streets in the floodplain (Victory Place) are significant, even with project mitigation. Downstream of the project, regional flood control facilities are operated by the County Flood Control District and are not under the jurisdiction of the City and not feasible to be improved by the project applicant or the City. Due to past development and continued development within the watershed, the project will further contribute to off-site drainage and flooding impacts, which are considered cumulatively considerable. These impacts are considered significant and unavoidable.

### *4.4.7 IMPACTS - DEVELOPMENT OPTION D1-A*

#### *Less than Significant Impacts*

##### *Potable Water*

The provision of a system to provide potable water for Development Option A is the same as for Development Option D1-A. Development Option D1-A is expected to generate demand for approximately 730,000 gpd of potable water.[1] As described for Development Option A, the project site will be served with adequate water supply, and no additional significant adverse impacts to the City of Burbank's water system or to the City's ability to serve current and future residents and businesses would result.

##### *Reclaimed Water/Water Conservation*

The developer has proposed to provide reclaimed water service for Development Option A the same as for Development Option D1-A. The City will provide adequate facilities to carry out this conservation program. Implementation of the project as proposed, including on-site provision of a reclaimed water system, a 20 foot easement along the southern (railroad) property line, will provide full project participation in the City's reclaimed water system, thereby reducing demand for potable water. Similar to Development Option A, Development Option D1-A will be subject to the requirements of Title 17 of the California Code of Regulations and the City of Burbank Water Division Rules and Regulations for Water Services (Section 4.09), providing additional water conservation programs.

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[1] Assumptions for potable water demand are based on "Commercial and Industrial Water Use in Southern California," prepared by Metropolitan Water District of Southern California, 1990.

#### *Fire Flow*

The fire flow for Development Option A is also required for Development Option D1-A by existing City and State development codes. Implementation of the proposed water supply systems will provide City required fire flow capacity to the project.

### *Significant Impacts*

#### *Flood Control*

The 100 year floodplain conditions for Development Option D1-A are the same as Option A. The three design options for addressing the 1,000 CFS deficiency of Lockheed Channel at Buena Vista Avenue are the same for Development Option D1-A.

#### *Drainage*

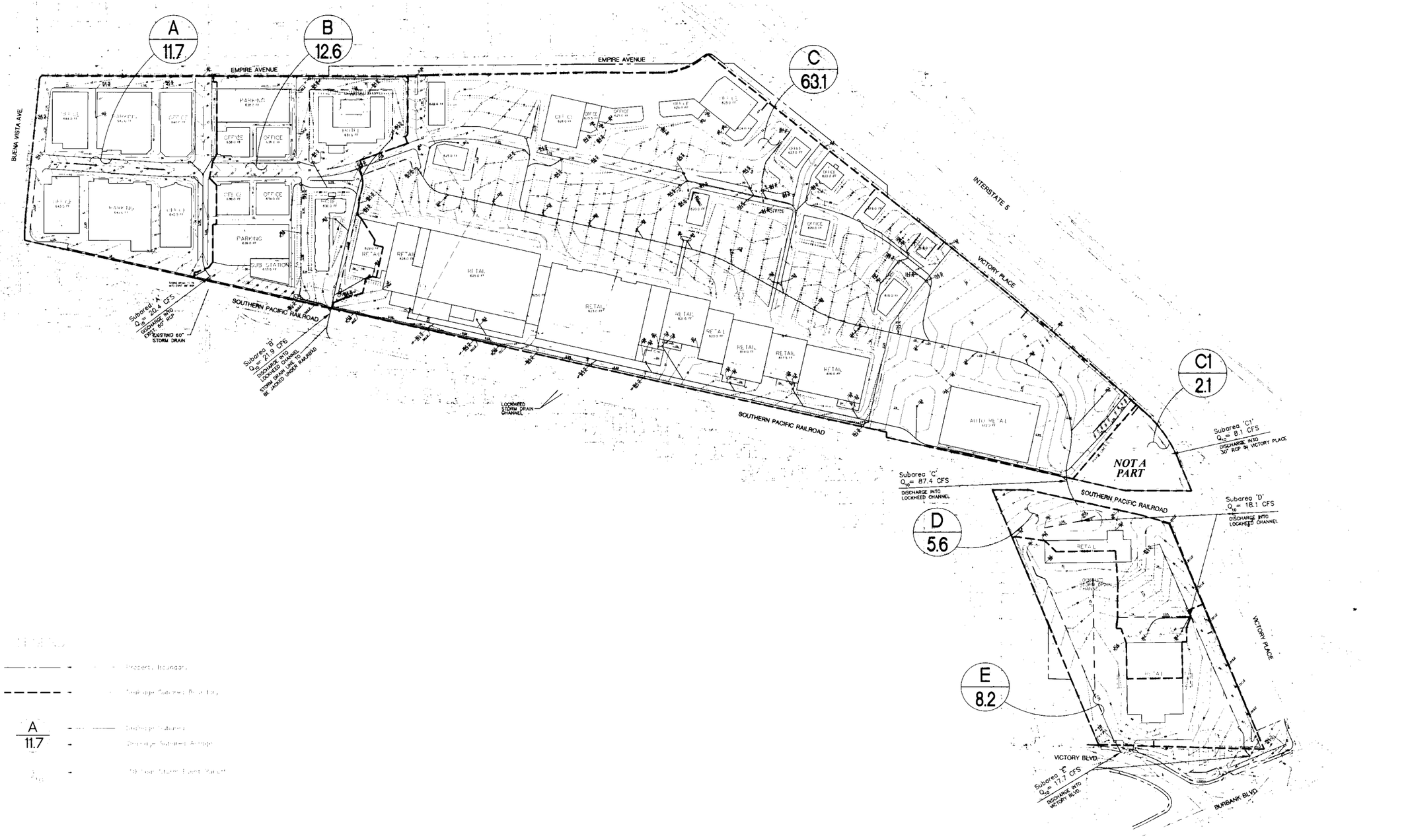
Figure 4.4.4 depicts the preliminary hydrology map for Development Option D1-A. The drainage conditions for Development Option A are the same for Development Option D1-A. Flooding impacts to on-site parking area, public parkways and sidewalks, and Victory Place would remain significant after mitigation. These impacts, especially to Victory Place, allowing episodic closures of this public street and contributing increased flow, are determined to be significant.

## *4.4.8 MITIGATION MEASURES - DEVELOPMENT OPTION D1-A*

Mitigation Measures 4.1 through 4.5 (see Section 4.4.4, Mitigation Measures - Development Option A) for Development Option A also apply to Development Option D1-A.

## *4.4.9 CUMULATIVE IMPACTS - DEVELOPMENT OPTION D1-A*

Cumulative impact analysis includes complete build out of the City of Burbank, as described in Section 4.4.5.




Source: Development Resource Consultants, Inc., April, 1999

4/30/99(BUR730)

Figure 4.4.4

N

LSA

Scale in Feet
0 250 500

Preliminary Hydrology Map
Development Option D1-A

As with Development Option A, there is a significant cumulative impact (see Section 4.4.5, Cumulative Impacts - Development Option A) associated with on-site drainage and flood control for Option D1-A.

There are no cumulatively significant impacts on the provision of water within the City.

### *4.4.10 LEVEL OF SIGNIFICANCE AFTER MITIGATION - DEVELOPMENT OPTION D1-A*

Even after mitigation, Development Option D1-A will result in continued flooding of public streets surrounding the site and continuation of the overcapacity conditions of the Lockheed Channel and other downstream channels. These impacts are significant and unavoidable.

### *4.4.11 IMPACTS - DEVELOPMENT OPTION D1-B*

#### *Less than Significant Impacts*

##### *Potable Water*

The provision of a system to provide potable water for Development Option A is similar or less for Development Option D1-B. Development Option D1-B is expected to generate demand for approximately 410,000 gpd of potable water.[1] As described for Development Option A, the project site will be served with adequate water supply, and no additional significant adverse impacts to the city of Burbank's water system or to the City's ability to serve current and future residents and businesses would result.

##### *Reclaimed Water/Water Conservation*

The developer has proposed to provide reclaimed water service for Development Option A the same as for Development Option D1-B. The City will provide adequate facilities to carry out this conservation program. Implementation of the project as proposed, including on-site provision of a reclaimed water system and a 20 foot easement along the southern (railroad) property line, will provide full project participation in the City's reclaimed water system, thereby reducing demand for potable water. Similar to Development Option A, Development Option D1-B will be subject to the requirements of Title 17 of the California Code of Regulations and the City of Burbank Water Division Rules and Regulations for Water Services (Section 4.09), providing additional water conservation programs.

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[1] Assumptions for potable water demand are based on "Commercial and Industrial Water Use in Southern California," prepared by Metropolitan Water District of Southern California, 1990.

### *Fire Flow*

The fire flow for Development Option A is also required for Development Option D1-B by existing City and State development codes. Implementation of the proposed water supply systems will provide City required fire flow capacity to the project.

## *Significant Impact*

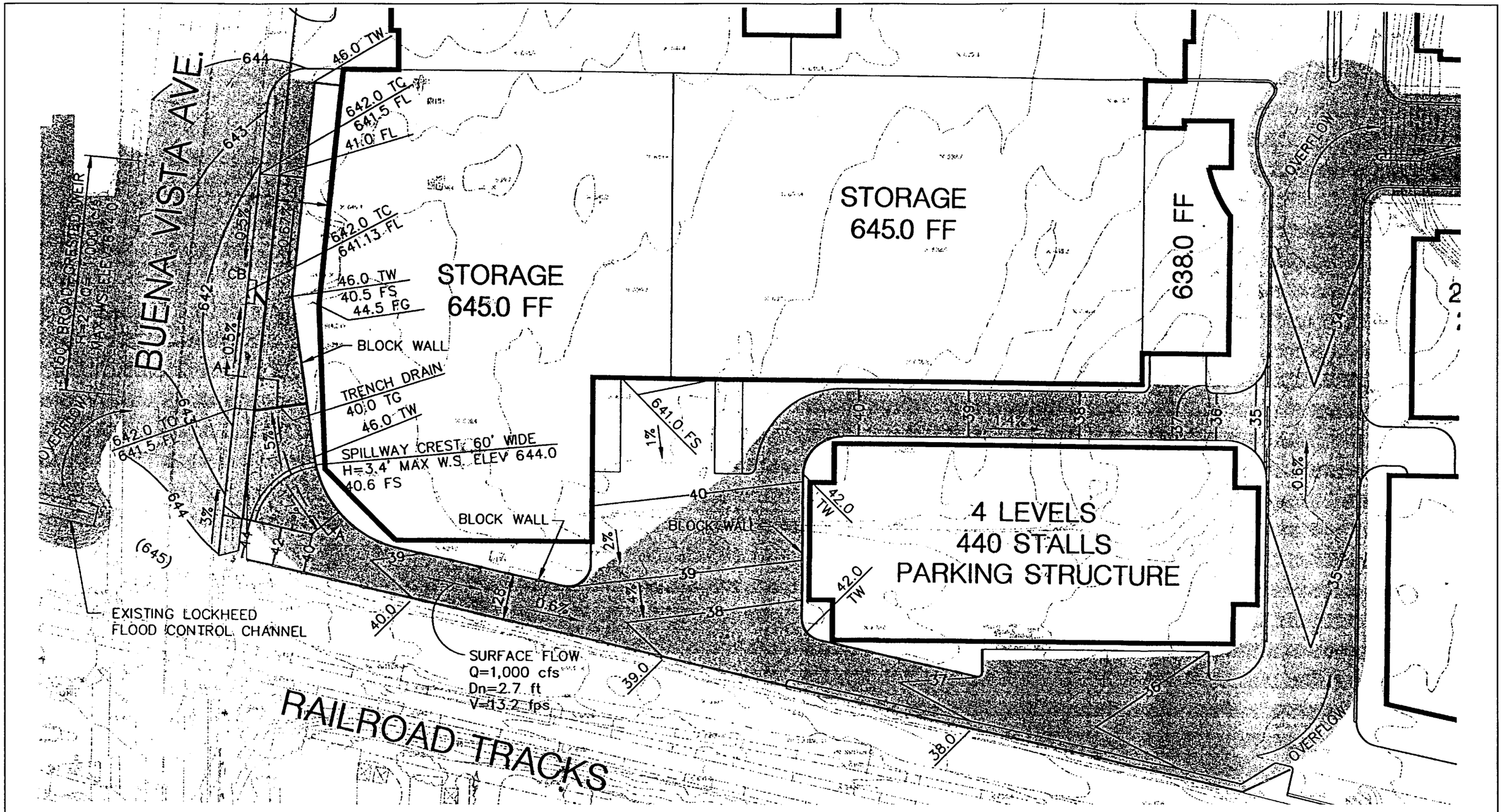
### *Flood Control*

The 100 year floodplain conditions for Development Option A are applicable to Development Option D1-B. The Supplemental Preliminary Hydrology Study, Burbank Empire Center (LEADS/DRC, February 20, 1998), prepared for Development Option D1-A, showed the storm water overflow of approximately 1,000 CFS being conveyed along the surface of the main east-west access road in the center of the proposed business park. However, because Development Option D1-B proposes to construct a studio complex that blocks the drainage flow path through the site, two alternative drainage solutions were identified by the project applicant, and are discussed below.

*Drainage Alternative 1 - Studio Portion*

This alternative would convey the runoff by surface flow around the southwest corner of the studio building (see Figures 4.4.5 and 4.4.6). In the event that the Lockheed Channel reaches capacity, the excess runoff would eventually rise to an elevation where it discharges over Buena Vista Avenue. The flow would then be collected in a low point, on the east side of Buena Vista Avenue, located approximately 220 feet north of the railroad tracks. As the water ponds at this point, it would begin to flow east over the top of the sidewalk by what is known as "weir flow." The sidewalk, functioning as a broad crested weir, would be configured to pass the entire 1,000 CFS.
After passing over the sidewalk, the flow would proceed south along a concrete-lined channel to a spillway crest designed to remove energy from the flow and direct the flow to the southeast. After passing the crest of the spillway, the flow would be contained by block walls on either side as it proceeds in an eastern direction around the south side of the studio building. The flow continues east and north over surface access roads where it eventually reaches the central flow path of the office and retail portions of the site.

The maximum height of the ponded water at Buena Vista Avenue is estimated to be elevation 644.0 for the peak flow of 1,000 CFS. Any new building at this location should be set at a minimum of one foot above the predicted water surface, or elevation 645.0. During the peak storm flow, Buena Vista Avenue would be submerged, including the sidewalk weir, with the spillway crest functioning as a single discharge point. The spillway would be 60 feet in width, having a crest Elevation of 640.6, and a depth of flow of 3.4 feet at peak discharge. A block wall would protect the studio building with a top of wall set at Elevation 646.0, two feet above the ponded water surface.




Source: Development Resource Consultants, Inc., April 1999.

4/30/99(BUR730)

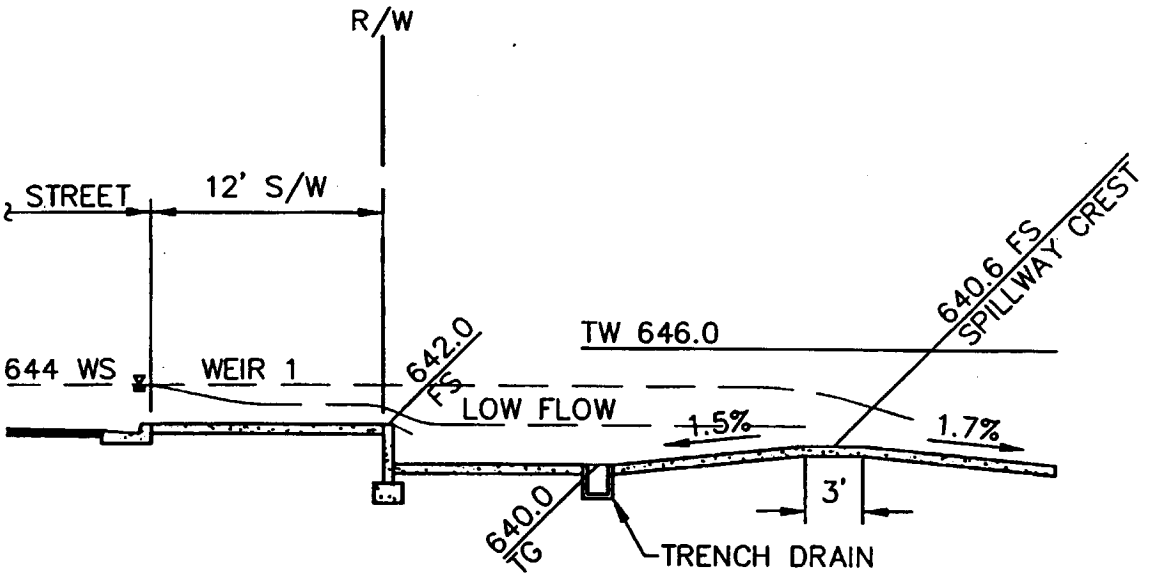
Figure 4.4.5

N

LSA

Scale in Feet
0 30 60

Development Option D1-B
Drainage Alternative 1




SECTION A–A
NTS

Source: Development Resource Consultants, Inc., April 1999 .

4/30/99(BUR730)

Figure 4.4.6

LSA

Development Option D1-B
Drainage Alternative 1
Cross Section

Drainage Alternative 1 would maintain the fire and emergency vehicle access to Buena Vista Avenue. As identified in Mitigation Measures 4.4 and 4.6, the area of flow should be designated as "No Parking," or "Fire Lane," in order to keep the area clear of obstructions and vehicles. Implementation of these mitigation measures will reduce the potentially significant impact to fire and emergency vehicle access to below a level of significance.

Other flood control measures such as block walls, berms, taller curbs, and pad elevations set above flood levels are warranted to protect the parking structure and other buildings. These flood control measures shall be determined during final design as identified in Mitigation Measure 4.7. Implementation of the mitigation measures will reduce the potentially significant impact to flooding to below a level of significance.

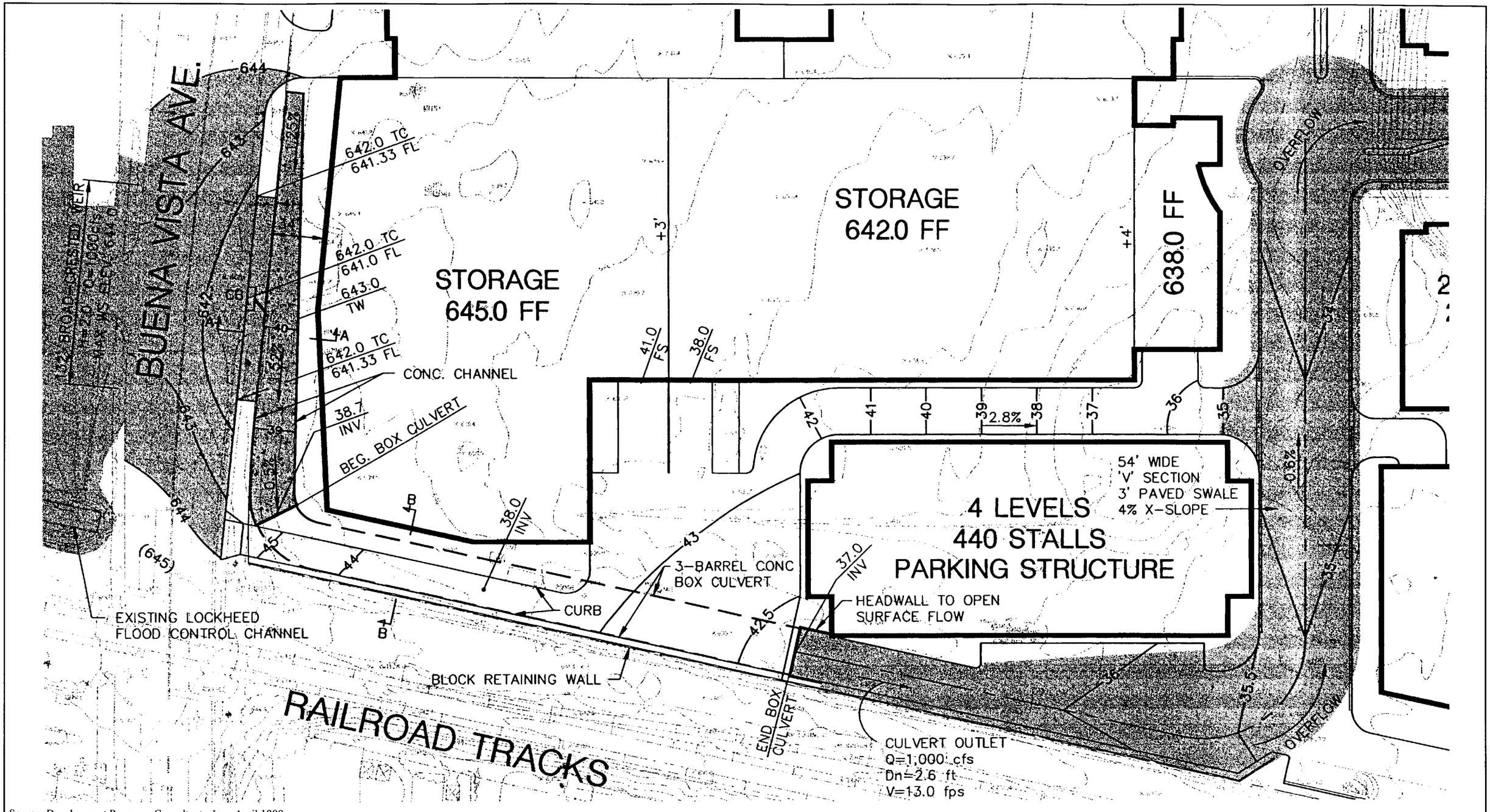
*Drainage Alternative 2*

This alternative would convey the runoff by a combination of surface flow and culvert flow around the southwest corner of the studio building (see Figures 4.4.7 and 4.4.8). Similar to Drainage Alternative 1, the channel overflow would pond at the low point in Buena Vista Avenue to a maximum water surface of Elevation 644.0. The flow would proceed east over the sidewalk, functioning as a broad crested weir, and then into a concrete lined rectangular channel that flows to the south. The rectangular channel would contain the 1,000 CFS flow, which would then enter a three barrel concrete box culvert at the southwest corner of the studio building. The flow would travel 350 feet in the box culvert, situated along the southern property line, where it would discharge to surface flow at the southwest corner of the parking structure. The flow would then proceed east and north in the access roads to reach the central flow path of the site.

Drainage Alternative 2 would maintain the fire and emergency vehicle access to Buena Vista Avenue. However, this alternative completely contains the peak flow in storm drain facilities as it travels around the southwest corner of the studio building. It avoids ponding of stormwater flows around the loading dock area. Therefore, project mitigation measures are not warranted.

Disadvantages include a higher cost due to the large box culvert construction (approximately $350,000) and elimination of east-west vehicular movements on the south side of the parking structure due to the culvert's outlet headwall.

Implementation of either Drainage Alternative 1 or Drainage Alternative 2 will successfully convey the 100 year storm overflow around the proposed studio building. However, the remaining development on the project site is the same as for Development Option D1-A, and therefore continues to result in 1,000 CFS deficiency of Lockheed Channel at Buena Vista Avenue. The three design options identified in Section 4.4.3 for Development Option A will apply to Development Option D1-B.




Source: Development Resource Consultants, Inc., April 1999.

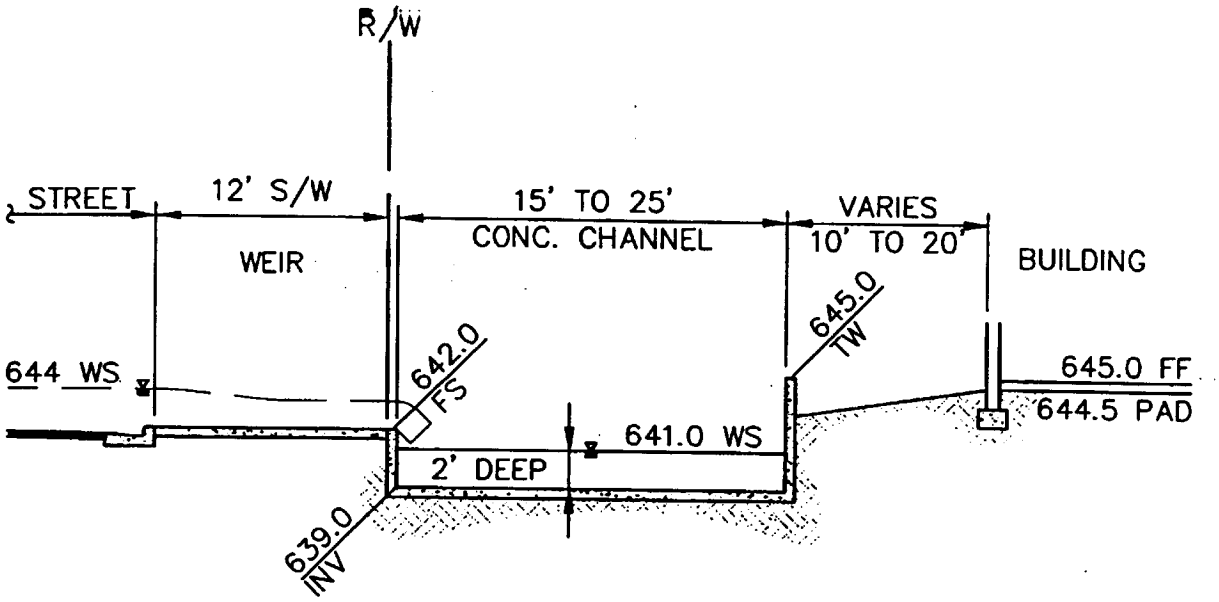
4/30/99(BUR730)

Figure 4.4.7

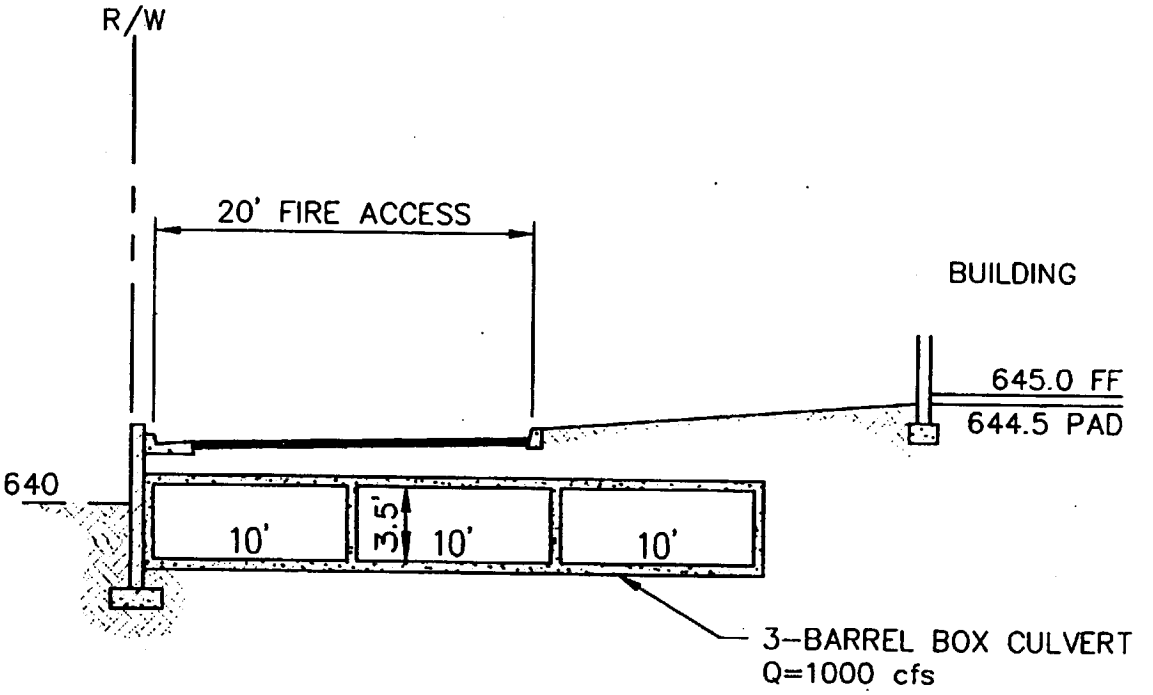
N

LSA Scale in Feet 0 30 60

Development Option D1-B
Drainage Alternative 2




SECTION A–A
NTS




SECTION B–B
NTS

Source: Development Resource Consultants, Inc., April 1999.

4/30/99(BUR730)

Figure 4.4.8

LSA

Development Option D1-B
Drainage Alternative 2
Cross Section

### *4.4.12 MITIGATION MEASURES - DEVELOPMENT OPTION D1-B*

Mitigation Measures 4.1 through 4.5 (see Section 4.4.4, Mitigation Measures - Development Option A) for Development Option A also apply to Development Option D1-B. Additionally, Mitigation Measures 4.6 and 4.7 apply to Option D1-B to avoid a significant impact.

4.6 The area of flow along Buena Vista Avenue shall be designated with appropriate signage and curb painting as "No Parking," or "Fire Lane," to keep the area clear of obstructions and vehicles. Signage shall be placed on the site prior to issuance of occupancy permits, subject to the approval of the Director, Public Works.

4.7 During final design, the developer and City of Burbank PSD shall provide a final hydrology study for Option D1-B to specify flood protection requirements, such as block walls, berms, taller curbs, and pad elevations set above 100 year flood levels. The developer shall be responsible for the additional improvements and flood control measures included in the Final Hydrology Study, as approved by the Directors, Public Works and Public Services Departments, prior to issuance of grading permits. The cost of implementation of such improvements, if determined to be required in final design, shall be as defined in the Development Agreement.

### *4.4.13 CUMULATIVE IMPACTS - DEVELOPMENT OPTION D1-B*

Cumulative impact analysis includes complete build out of the City of Burbank, as described in Section 4.4.5.

As with Development Option A, there is a significant cumulative impact associated with on-site drainage and off-site flood control for Option D1-B.

There are no cumulatively significant impacts on the provision of water within the City.

### *4.4.14 LEVEL OF SIGNIFICANCE AFTER MITIGATION - DEVELOPMENT OPTION D1-B*

Even after mitigation, Development Option D1-B will result in flooding of public streets surrounding the site and continuation of the overcapacity conditions of the Lockheed Channel and other downstream channels. These impacts are significant and unavoidable.

### *4.4.15 IMPACTS - DEVELOPMENT OPTION D1-C*

#### *Less Than Significant Impacts*

##### *Potable Water*

The provision of a system to provide potable water for Development Option A is the same as for Development Option D1-C. Development Option D1-C is expected to generate demand for approximately 592,000 gpd of potable water.[1] As described for Development Option A, the project site will be served with adequate water supply, and no additional significant adverse impacts to the City of Burbank's water system or to the City's ability to serve current and future residents and businesses would result.

##### *Reclaimed Water/Water Conservation*

The developer has proposed to provide reclaimed water service for Development Option A the same as for Development Option D1-C. The City will provide adequate facilities to carry out this conservation program. Implementation of the project as proposed, including on-site provision of a reclaimed water system, a 20 foot easement along the southern (railroad) property line will provide full project participation in the City's reclaimed water system, thereby reducing demand for potable water. Similar to Development Option A, Development Option D1-C will be subject to the requirements of Title 17 of the California Code of Regulations and the City of Burbank Water Division Rules and Regulations for Water Services (Section 4.09), providing additional water conservation programs.

##### *Fire Flow*

The fire flow for Development Option A is also required for Development Option D1-C by existing City and State development codes. Implementation of the proposed water supply systems will provide City required fire flow capacity to the project.

#### *Potentially Significant Impacts*

##### *Flood Control*

The 100 year floodplain conditions for Development Option D1-C are the same as for Development Option A. The three design options for addressing the 1,000 CFS deficiency of Lockheed Channel at Buena Vista Avenue are the same for Development Option D1-C.

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[1] Assumptions for potable water demand are based on "Commercial and Industrial Water Use in Southern California," prepared by Metropolitan Water District of Southern California, 1990.

***Drainage***

The preliminary hydrology map for Development Option D1-C (Figure 4.4.9), shows that the same drainage conditions exist for Development Option D1-C as for Development Option A. Additionally, the flooding impacts to on-site parking areas, public parkways and sidewalks, and especially Victory Place, would also remain significant after mitigation. Episodic closures of Victory Place, and increased flooding impacts, are determined to be significant.

### *4.4.16 MITIGATION MEASURES - DEVELOPMENT OPTION D1-C*

Mitigation Measures 4.1 through 4.5 (see Section 4.4.4, Mitigation Measures - Development Option A) for Development Option A also apply to Development Option D1-C.

### *4.4.17 CUMULATIVE IMPACTS - DEVELOPMENT OPTION D1-C*

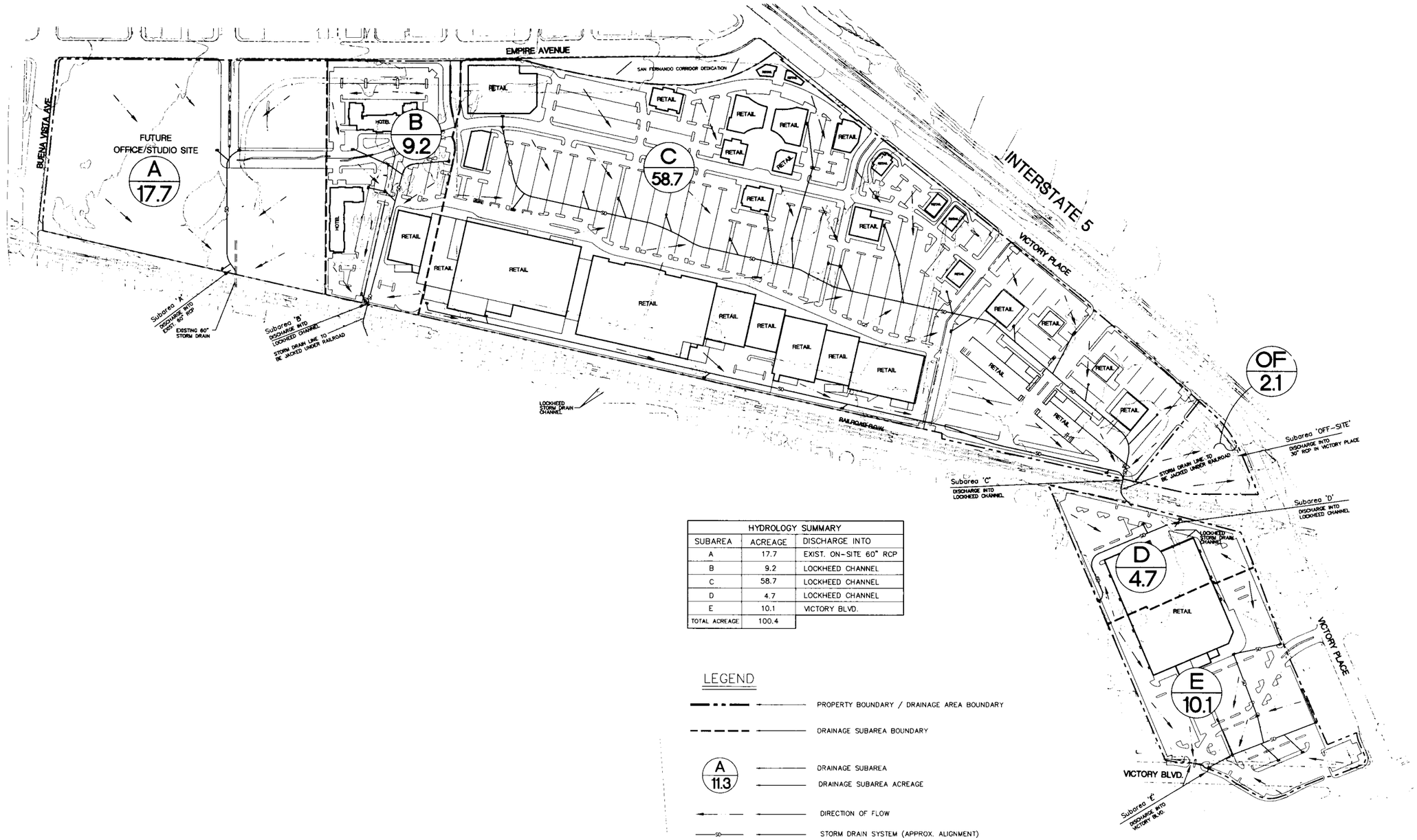
Cumulative impact analysis includes complete build out of the City of Burbank, as described in Section 4.4.5.

As with Development Option A, there is a significant cumulative impact (see Section 4.4.5, Cumulative Impacts - Development Option A) associated with on-site drainage and flood control for Option D1-C.

There are no cumulatively significant impacts on the provision of water within the City.

### *4.4.18 LEVEL OF SIGNIFICANCE AFTER MITIGATION - DEVELOPMENT OPTION D1-C*

Even after mitigation, Development Option D1-C will result in continued flooding of public streets surrounding the site and continuation of the overcapacity conditions of the Lockheed Channel and other downstream channels. These impacts are significant and unavoidable.




| HYDROLOGY SUMMARY | | |
|---|---|---|
| SUBAREA | ACREAGE | DISCHARGE INTO |
| A | 17.7 | EXIST. ON-SITE 60" RCP |
| B | 9.2 | LOCKHEED CHANNEL |
| C | 58.7 | LOCKHEED CHANNEL |
| D | 4.7 | LOCKHEED CHANNEL |
| E | 10.1 | VICTORY BLVD. |
| TOTAL ACREAGE | 100.4 | |

LEGEND

- PROPERTY BOUNDARY / DRAINAGE AREA BOUNDARY
- DRAINAGE SUBAREA BOUNDARY
- A / 11.3 — DRAINAGE SUBAREA / DRAINAGE SUBAREA ACREAGE
- DIRECTION OF FLOW
- SD — STORM DRAIN SYSTEM (APPROX. ALIGNMENT)

Source: Development Resource Consultants, Inc. (December, 1999)

12/13/99(BUR730)

Figure 4.4.9

N

LSA

Scale in Feet

0 250 500

Preliminary Hydrology Map
Development Option D1-C